



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2021-0654; Project Identifier MCAI-2021-00682-E; Amendment 39-21684; AD 2021-17-01]**

**RIN 2120-AA64**

**Airworthiness Directives; Austro Engine GmbH Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Austro Engine GmbH E4 and E4P model diesel piston engines. This AD was prompted by a report of oil pressure loss on an E4 model diesel piston engine. This AD requires removing a certain oil pump from service and replacing it with a part eligible for installation. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Austro Engine GmbH, Rudolf-Diesel-Strasse 11, 2700 Weiner Neustadt, Austria; phone: +43 2622 23000 2525; website: [www.austroengine.at](http://www.austroengine.at). You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (781) 238-7759. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0654.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0654; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for the Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Wego Wang, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7134; fax: (781) 238-7199; email: [wego.wang@faa.gov](mailto:wego.wang@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, issued EASA Emergency AD 2021-0143-E, dated June 16, 2021 (referred to after this as “the MCAI”), to address the unsafe condition on these products. The MCAI states:

An occurrence was reported of oil pressure loss on an E4 engine. Subsequent investigation determined that a certain batch of oil pumps was produced with a dimensional deviation on the inner gear/shaft. The inner gear/shaft of those pumps may come into contact with the pump housing, which might create debris and cause jamming of the oil pump.

This condition, if not corrected, could lead to engine in-flight shut-down with consequent forced landing, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Austro Engine published the [service bulletin] to provide instructions to replace the affected oil pumps.

For the reason described above, this [EASA] AD requires replacement of affected parts with serviceable parts, as defined in this [EASA] AD. This [EASA] AD also prohibits (re)installation of affected parts on all engines.

You may obtain further information by examining the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0654.

#### **FAA's Determination**

This product has been approved by EASA and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified the FAA of the unsafe condition described in the MCAI and service information. The FAA is issuing this AD because the agency evaluated all the relevant information provided by EASA and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Related Service Information under 1 CFR part 51**

The FAA reviewed Austro Engine Mandatory Service Bulletin No. MSB-E4-031/1, Revision No. 1, dated July 1, 2021. This service information specifies procedures for replacing the affected oil pump installed on E4 and E4P model diesel piston engines.

In addition, this service information identifies the applicable part number and serial numbers of affected oil pumps requiring replacement and an additional oil pump replacement option. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

### **AD Requirements**

This AD requires removing the affected oil pump from service and replacing it with a part eligible for installation.

### **Justification for Immediate Adoption and Determination of the Effective Date**

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule. The FAA received a report of oil pressure loss on an E4 model diesel piston engine. The manufacturer subsequently determined that the oil pressure loss was caused by certain oil pumps produced with a dimensional deviation on the inner gear/shaft that may have contacted the pump housing. This contact might create debris and cause oil pump blockage. Austro Engine issued service information providing instructions for replacement of a certain oil pump installed on E4 and E4P model diesel piston engines.

A jammed oil pump can result in failure of the engine, in-flight shutdown, and loss of the airplane. The FAA considers a jammed oil pump to be an urgent safety issue that requires immediate action to avoid loss of the airplane. The actions required by this

AD must be done before further flight after the AD's effective date. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B). In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

### **Comments Invited**

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2021-0654 and Project Identifier MCAI-2021-00682-E" at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Wego Wang, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803. Any

commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Regulatory Flexibility Act**

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

### **Costs of Compliance**

The FAA estimates that this AD affects 10 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Remove and replace the oil pump	16 work-hours x \$85 per hour = \$1,360	\$1,445	\$2,805	\$28,050

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2021-17-01 Austro Engine GmbH:** Amendment 39-21684; Docket No. FAA-2021-0654; Project Identifier MCAI-2021-00682-E.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Austro Engine GmbH E4 and E4P model diesel piston engines.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 8550, Reciprocating Engine Oil System.

**(e) Unsafe Condition**

This AD was prompted by a report of oil pressure loss on an E4 model diesel piston engine. The FAA is issuing this AD to prevent failure of the engine. The unsafe condition, if not addressed, could result in failure of the engine, in-flight shutdown, and loss of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

Before further flight after the effective date of this AD, remove the oil pump, part number (P/N) E4A-50-000-BHY, with a serial number (S/N) listed in paragraph 1.2., Engines Affected, Tables 2 and 3, of Austro Engine GmbH Mandatory Service Bulletin No. MSB-E4-031/1, Revision No. 1, dated July 1, 2021 (the MSB), from service and replace with a part eligible for installation using the Accomplishment / Instructions, paragraph 2.2.1 or paragraph 2.2.2., of the MSB, as applicable.

**(h) No Communication or Reporting Requirements**

The instructions to contact the manufacturer and report information to the manufacturer in the Accomplishment / Instructions, paragraph 2.2, of the MSB, are not required by this AD.

**(i) Installation Prohibition**

After the effective date of this AD, do not install onto any engine an oil pump with P/N E4A-50-000-BHY and an S/N listed in paragraph 1.2., Engines Affected, Tables 2 and 3, of the MSB.



## **(j) Definitions**

For the purpose of this AD, a “part eligible for installation” is an oil pump that is not P/N E4A-50-000-BHY or an oil pump P/N E4A-50-000-BHY and an S/N that is not listed in paragraph 1.2., Engines Affected, Tables 2 and 3, of the MSB.

## **(k) Special Flight Permit**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are subject to the requirements of paragraph (k)(1) and (2) of this AD.

(1) Operators of a twin-engine airplane that has one or two Model E4 engines in configuration “-B” or “-C” or Model E4P engines installed may perform a one-time non-revenue ferry flight to a location where the engine can be removed from service. This ferry flight must be performed with only essential flight crew.

(2) All other ferry flights are prohibited.

## **(l) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ECO Branch, send it to the attention of the person identified in Related Information. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

## **(m) Related Information**

(1) For more information about this AD, contact Wego Wang, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7134; fax: (781) 238-7199; email: wego.wang@faa.gov.

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2021-0143-E, dated June 16, 2021, for more information. You may examine the EASA AD in the AD

docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0654.

**(n) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Austro Engine Mandatory Service Bulletin No. MSB-E4-031/1, Revision No. 1, dated July 1, 2021.

(ii) [Reserved]

(3) For Austro Engine service information identified in this AD, you may contact Austro Engine GmbH, Rudolf-Diesel-Strasse 11, 2700 Weiner Neustadt, Austria; phone: +43 2622 23000 2525; website: [www.austroengine.at](http://www.austroengine.at).

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (781) 238-7759.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on August 2, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.